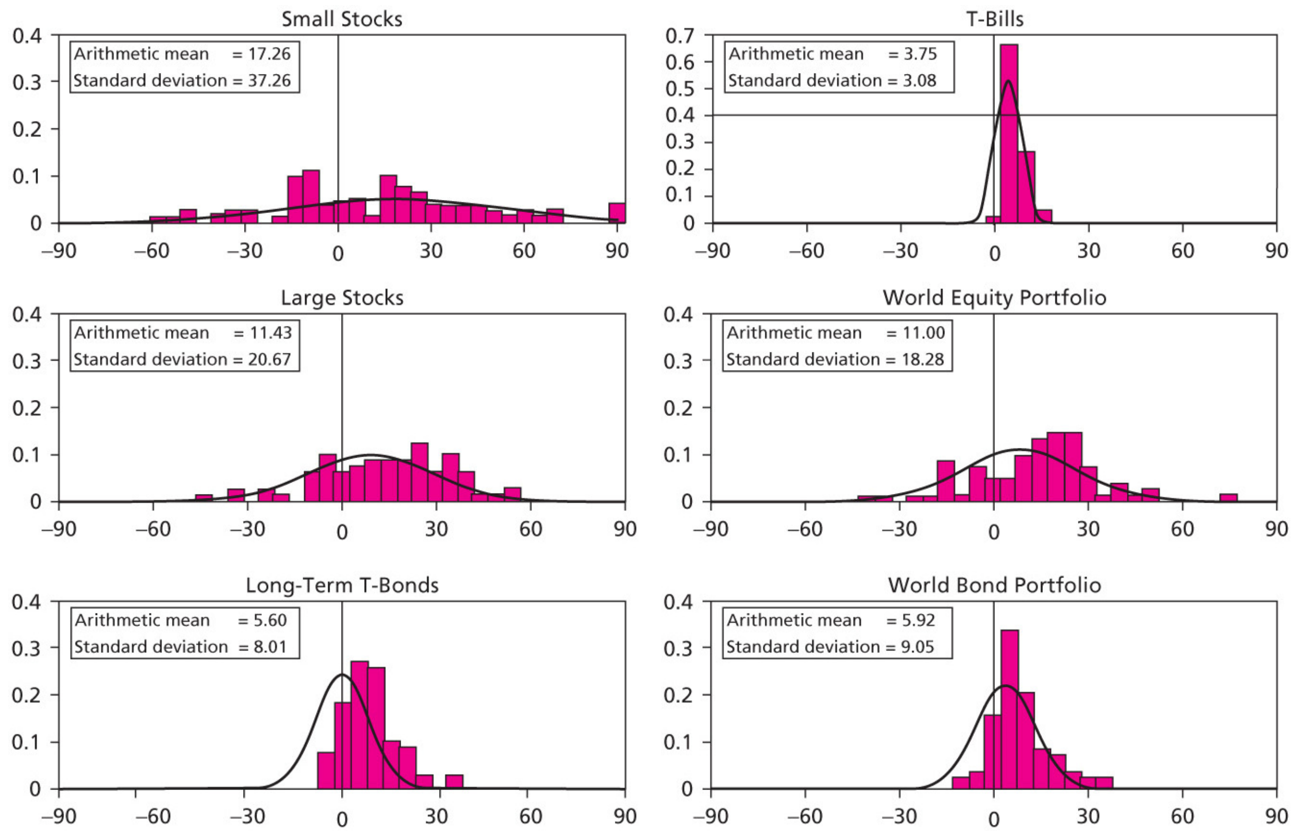
Introduction to Securities Markets (Cont’d)

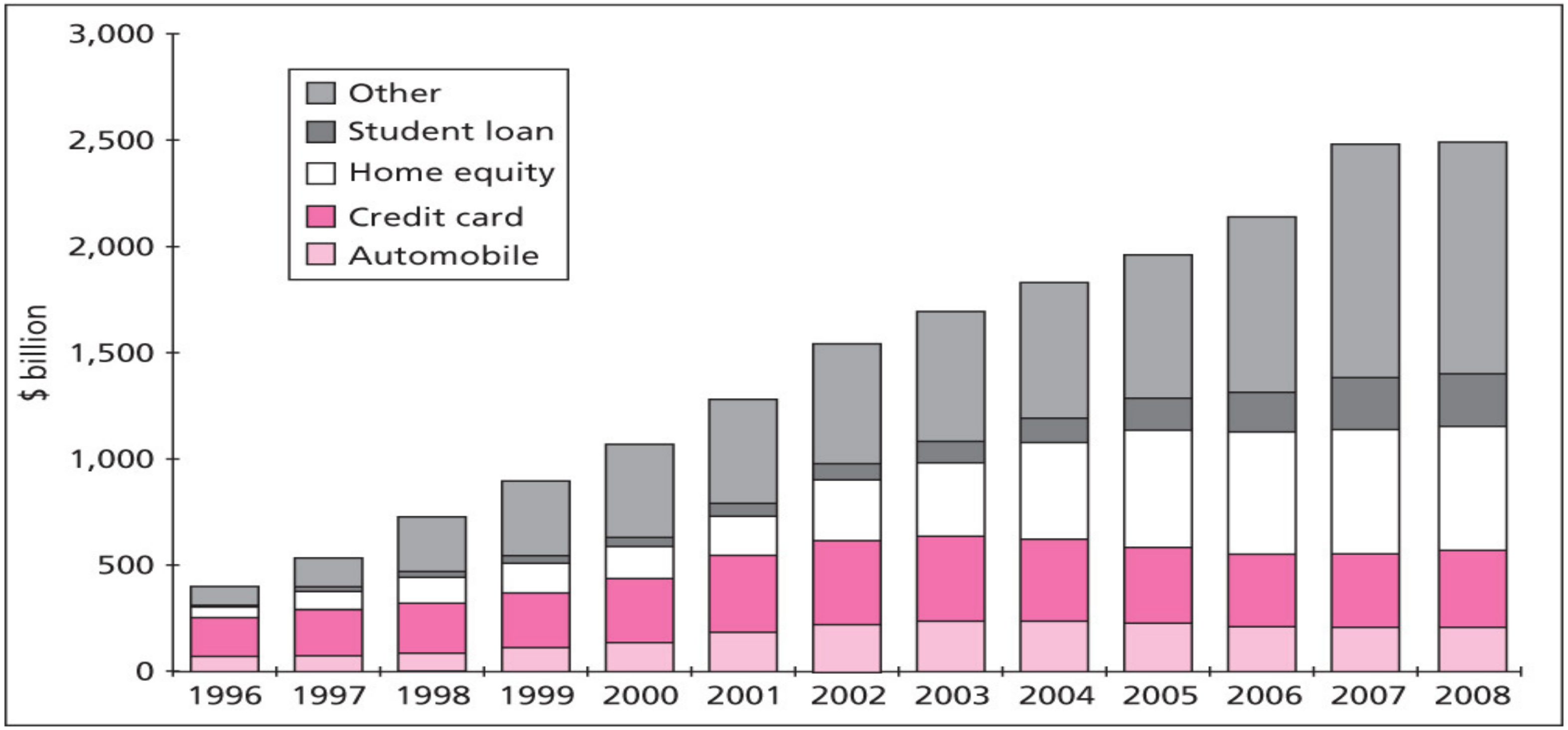
Risk-Return Trade- Off



Derivative Securities

- Options
- Futures
- ABS (ex. CMOs, CDOs)
- Swaps (ex. CDSs)

Asset-backed Securities Outstanding



Financial Engineering

- Repackaging cash flows of a security to enhance marketability
- Bundling and unbundling of cash flows
  - Bundling:

    Combining more than one asset into a composite security, for example securities sold backed by a pool of mortgages.
  - Unbundling

    Selling separate claims to the cash flows of one security, for example a CMO

Mortgage Security

This announcement appears as a matter of record only.

$200,000,000*

Federal National Mortgage Association

FannieMae

Stripped Mortgage-Backed Securities

Principal and Interest payable on the 25th day of each month, commencing August 25, 1987

SMBS Trust 20-CL—Fixed-Rate Residential Mortgage Loans

SMBS Class 1: 100% of Principal Payments on Underlying 9½% Fannie Mae Guaranteed Mortgage Pass-Through Certificates

SMBS Class 2: 100% of Interest Payments on Underlying 9½% Fannie Mae Guaranteed Mortgage Pass-Through Certificates

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The obligations of Fannie Mae under its guaranty of the SMBS Certificates are obligations of Fannie Mae and are not backed by the full faith and credit of the United States. The SMBS Certificates are exempt from the registration requirements of the Securities Act of 1933 and are "Exempted Securities" within the meaning of the Securities Exchange Act of 1934.

Class 1	**$200,000,000 Principal Amount***
Class 2	**$200,000,000 Notional Principal Amount***

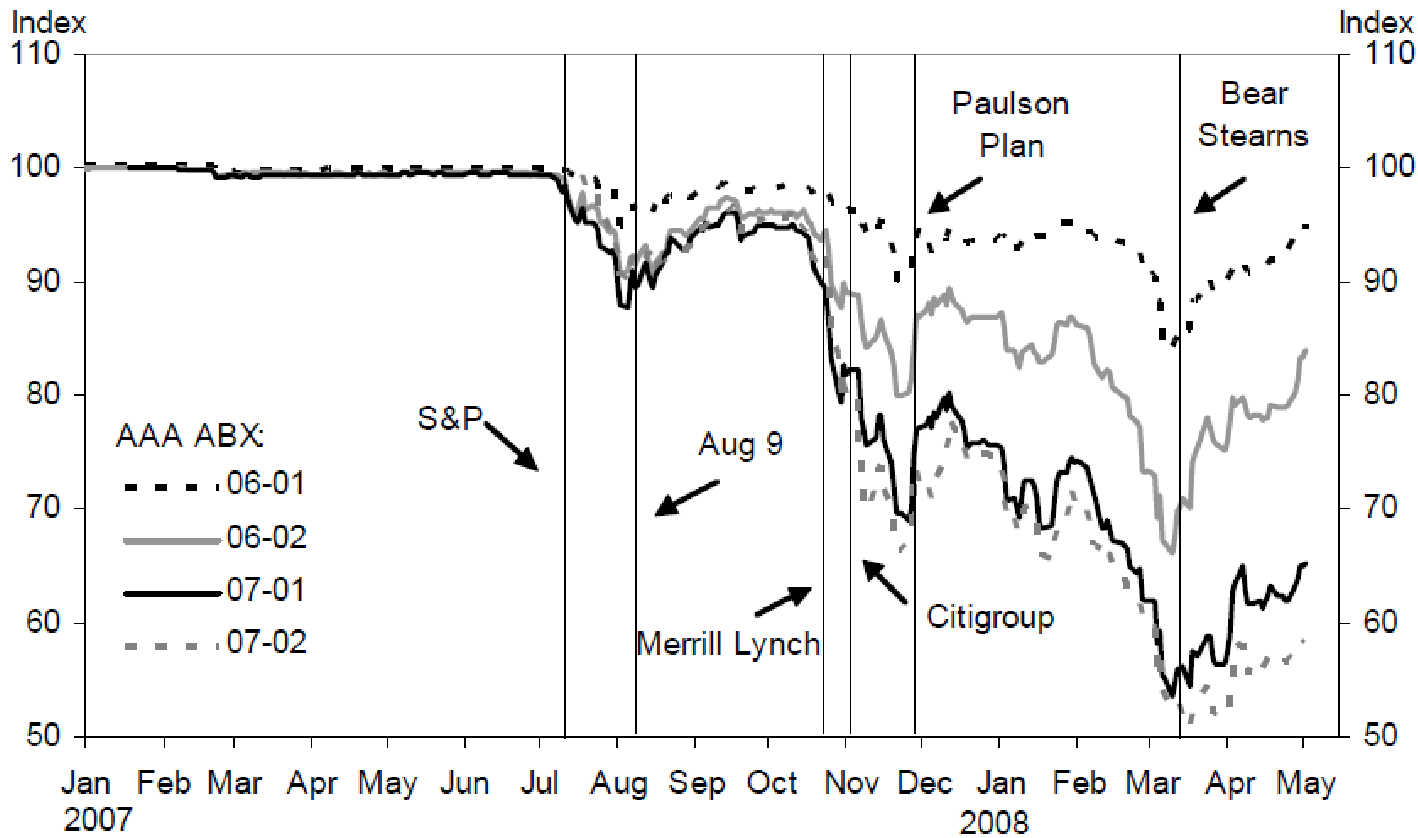
Goldman, Sachs & Co.

July 9, 1987

*Approximate

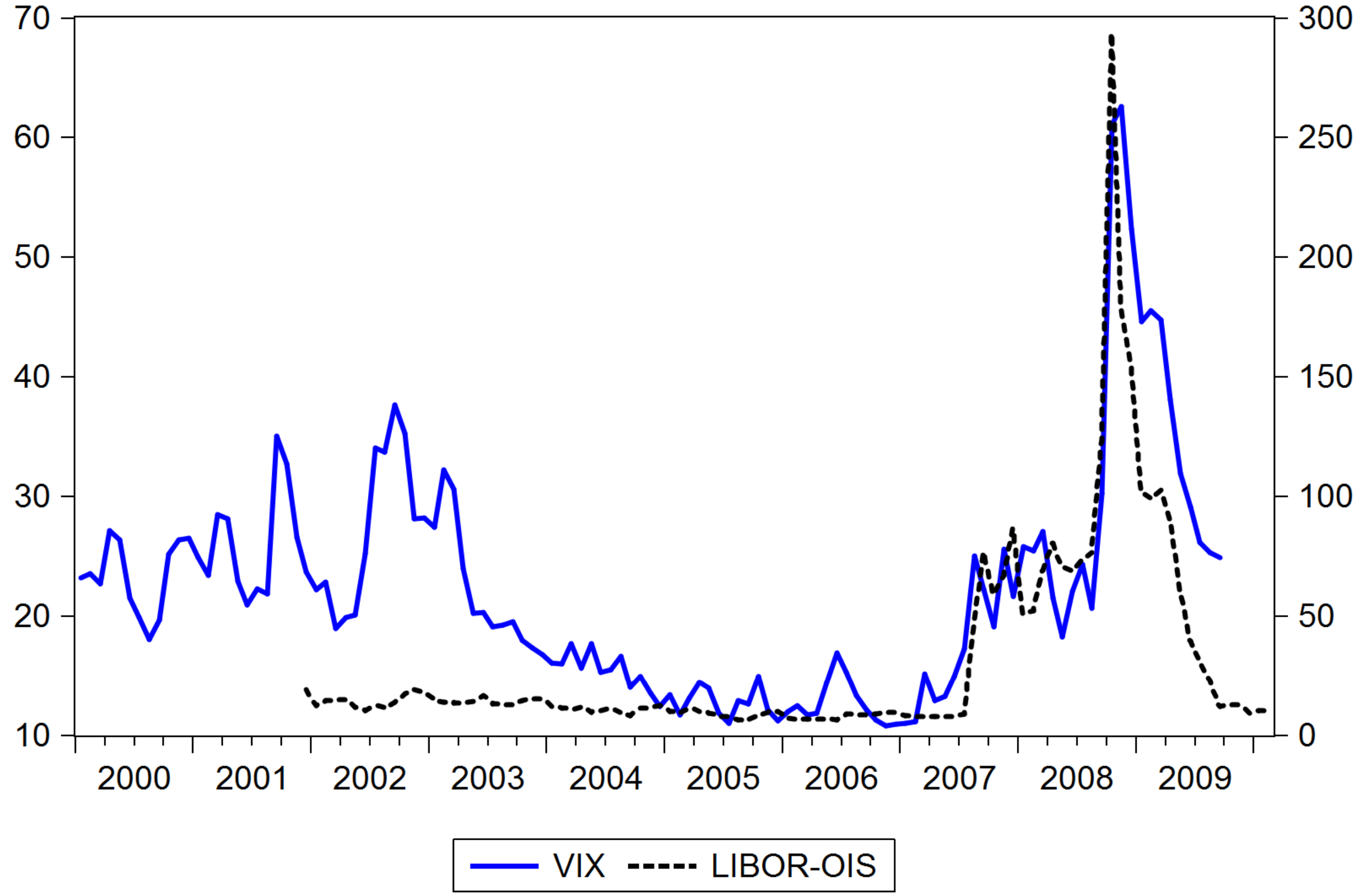
Mortgage Securities During the Subprime Crisis

Exhibit 2.12 ABX Indices (AAA Rated Vintages)



Source: Goldman Sachs.

Major Risk Indicators



Risk-Return Trade- Off

- How do we measure risk?
- How does diversification affect risk?
- Focus of the first 2&1/2 weeks and last 3 weeks of the class.

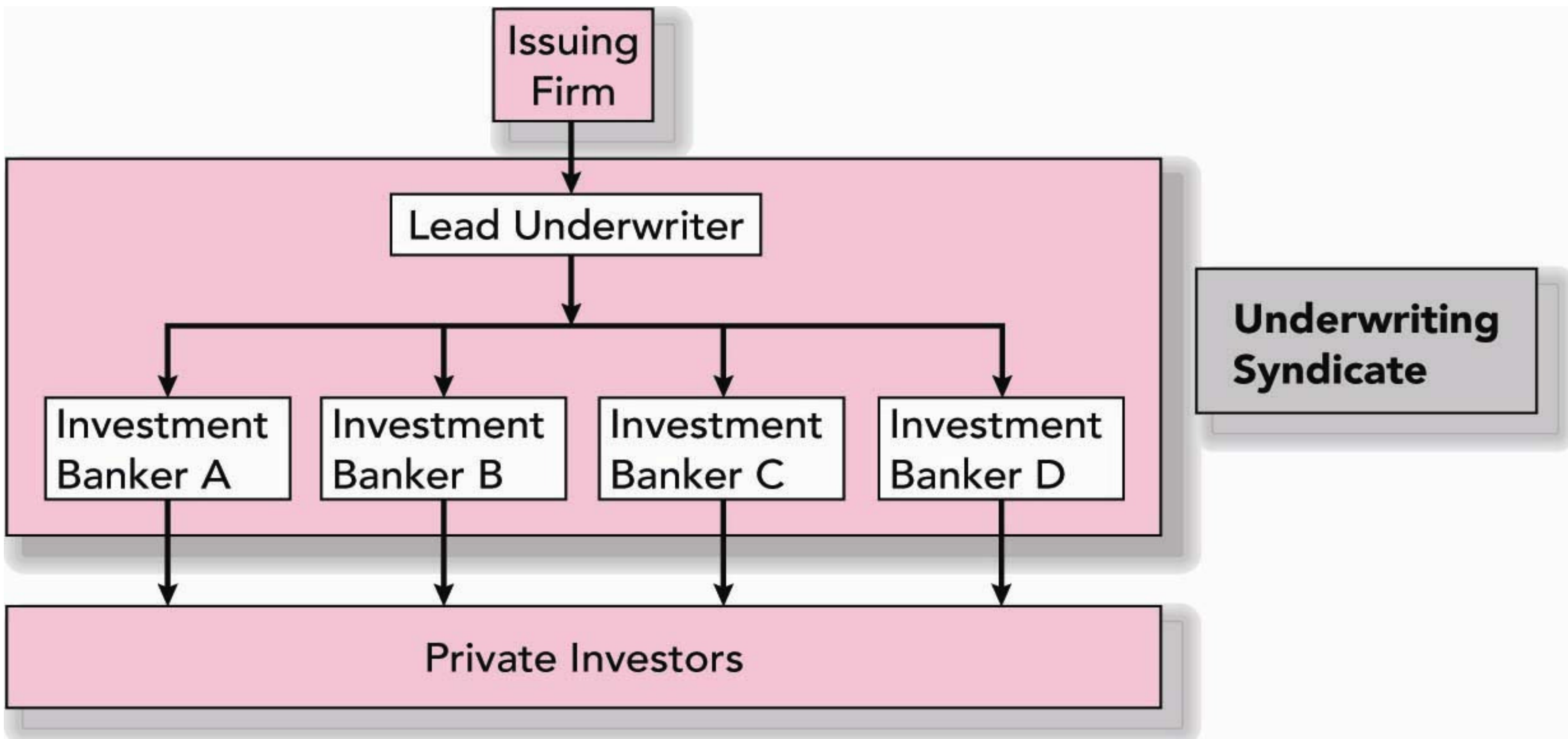
Chapter 3

How Securities are Traded

Primary vs. Secondary Market Security Sales

- Primary
  - New issue
  - Key factor: issuer receives the proceeds from the sale
- Secondary
  - Existing owner sells to another party
  - Issuing firm doesn’t receive proceeds and is not directly involved

Figure 3.1 Relationship Among a Firm Issuing Securities, the Underwriters and the Public



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Initial Public Offerings

- **IPO Process**
  - Issuer and banker put on the "Road Show"
    Purpose: Book building and pricing
  -
- **Underpricing**
  - Post initial sale returns average about 10% or more, "Winner's curse" problem?
    Easier to market the issue, but costly to the issuing firm
  -

How Securities are Traded

- **Direct Search Markets**
  - Buyers and sellers locate one another on their own
- **Brokered Markets**
  - 3rd party assistance in location buyer or seller
- **Dealer Markets**
  - 3rd party acts as intermediate buyer/seller
- **Auction Markets**
  - Brokers & dealers trade in one location, trading is more or less continuous

Types of Orders

- ***Market order*:** *execute immediately at the best price*
- ***Price contingent:*** investors specify price
  - ***Limit Orders***
  - ***Stop Loss Orders***

Limit Order Book for Intel on Archipelago

INTC Intel Corp

NYSE Arca. INTC Go>>

Bid				Ask			
ID	Price	Size	Time	ID	Price	Size	Time
ARCA	15.95	6468	12:33:36	ARCA	15.96	300	12:33:36
AUBSS	15.94	700	12:13:18	ARCA	15.97	7000	12:33:35
ARCA	15.94	7800	12:33:35	ARCA	15.98	8100	12:33:36
ARCA	15.93	8500	12:33:35	ARCA	15.99	11000	12:33:36
ARCA	15.92	10900	12:33:35	ARCA	16.00	7500	12:33:36
ARCA	15.91	8300	12:33:36	ARCA	16.01	2500	12:33:36

Types of Orders Continued

Action	Condition: Price falls below the limit	Condition: Price rises above the limit
Buy	Limit buy order	Stop-buy order
Sell	Stop-loss order	Limit sell order

Example:

Suppose you shortsell Nat'l City Capital Trust (NCC)

Limit Order: SS 2000 NCC @ 5

(Filled: SLD Short 2000 NCC @ 5)

Want to have a minimum gain of $2,000 while limiting potential losses

BTC 2000 NCC @ 4 (implies a limit order)

Upside protection (buy to cover):

BTC 2000 NCC @ 6 STOP (stop buy order)

Example follows the format of Santa Clara University MBA Class, Prof. Sury

Short Squeeze!

FRANKFURT | Tue Oct 28, 2008 1:54pm EDT
(Reuters) - Volkswagen ([VOWG.DE]) briefly became the world's biggest company by market value on Tuesday, as short sellers caught betting on a price drop with borrowed stock scrambled to find shares after a buying spree by Porsche ([PSHG_p.DE]).

Trading Costs

- ***Commission***: fee paid to broker for making the transaction
- ***Spread***: cost of trading with dealer
  - **Bid**: price dealer will buy from you
  - **Ask**: price dealer will sell to you
  - **Spread**: ask - bid

Buying on Margin

- Using only a portion of the proceeds for an investment
- Borrow remaining component
- Margin arrangements differ for stocks and futures

Trading on Margin

- **Margin** – set to 50% by the FED, can borrow up to 50% of the stock value
- **Maintenance Margin** – minimum amount equity before additional funds must be put into the account
- **Margin call** – notification from broker you must put up additional funds

Buying on Margin

Long:

1) Margin (Equity) = Value of Stock – Loan

2) % Margin = Equity / Value of Stock

3) $P^{\textbf{Margin Call}}$ x # Shares = Loan / (1 – MMR)

5) HPR = (Final Equity–Initial Equity)/Initial Equity

Margin Trading - Example 1

You purchased 100 shares of IBM stock on margin (50% initial margin). IBM.s stock price is $100 per share at the time you purchase.

1.1)Loan (amount borrowed)?

1.2) Margin (Equity)?

1.3) Suppose maintenance margin is 30%. At what price will you receive a margin call from your broker?

1.4) At that price, how much cash will you have to put up?

Margin Trading Magnifies Profits and Losses

Change in Stock Price	End-of-Year Value of Shares	Repayment of Principal and Interest*	Investor's Rate of Return
30% increase	$26,000	$10,900	51%
No change	20,000	10,900	−9
30% decrease	14,000	10,900	−69

*Assuming the investor buys $20,000 worth of stock by borrowing $10,000 at an interest rate of 9% per year.